

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI(NEW) EXAMINATION – WINTER 2022****Subject Code:3161916****Date:16-12-2022****Subject Name:Product Development and Entrepreneurship****Time:02:30 PM TO 05:00 PM****Total Marks:70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

- Q.1** (a) Define product development? Give four example of product development. **03**
- (b) Describe briefly the phases of product life cycles. **04**
- (c) Define product planning. Explain the product planning process in detail. **07**
- Q.2** (a) Why affinity diagrams are used for product planning? **03**
- (b) Explain briefly the concept of reverse engineering for product development. **04**
- (c) How the manufacturing costs of product are decided in DFM methodology? Explain in detail. **07**
- OR**
- (c) Describe the various methods used to determine customer need importance. **07**
- Q.3** (a) Enlist the steps required to target the product specifications. **03**
- (b) How is the design for assembly (DFA) methodology important to minimize the cost of assembly? Explain briefly. **04**
- (c) What is product modularity? Explain various types of product modularity. **07**
- OR**
- Q.3** (a) What is design for maintainability of the product? **03**
- (b) Explain free-form fabrication method (additive manufacturing) as a prototyping technique. **04**
- (c) Describe the function analysis approach used for product development. **07**
- Q.4** (a) Enlist characteristics required for successful entrepreneurs. **03**
- (b) Differentiate between managerial v/s entrepreneurial approaches. **04**
- (c) How the marketing plan for the new venture can be prepared? Describe with detail steps. **07**

OR

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| Q.4 | (a) | Enlist the factors impacting emergence of entrepreneurship. | 03 |
| | (b) | Explain role of entrepreneurship in economic development. | 04 |
| | (c) | What is Performa balance sheet? How the break even analysis is useful for new venture? | 07 |
| Q.5 | (a) | How the manpower planning is important for entrepreneur? | 03 |
| | (b) | Describe in detail the importance of feasibility study for a new venture. | 04 |
| | (c) | What is patent? Explain in detail about design and utility patents. | 07 |

OR

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| Q.5 | (a) | How the financial planning can be done by entrepreneur for the new venture? | 03 |
| | (b) | Enlist the necessary steps have to be followed by an entrepreneur while drawing a business plan. | 04 |
| | (c) | Describe in details the terminology related with intellectual property rights (i) trademarks (ii) trade secrets (iii) franchising. | 07 |
